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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/578,571	12/05/2006	Philippe Espiard	290716US0PCT	9056
22850	7590	12/08/2010		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER THOMPSON, CAMIE S	
			ART UNIT	PAPER NUMBER
			1786	
			NOTIFICATION DATE	DELIVERY MODE
			12/08/2010	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/578,571

**Applicant(s)**

ESPIARD ET AL.

**Examiner**

Camie S. Thompson

**Art Unit**

1786

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed 10/12/2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-2 and 4-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. Applicant's amendment and accompanying remarks filed October 12, 2010 are acknowledged.
2. Examiner acknowledges cancelled claim 3.
3. Examiner acknowledges newly added claims 1 and 22.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-2, 4-9 and 18-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Pfeil et al., U.S. Patent Number 5,908,902

Pfeil discloses a self-emulsifying epoxy resin that is useful in dispersions (see column 1, lines 5-11). Pfeil also disclose aqueous epoxy resin dispersion (see column 4, lines 15-20). The reference discloses that epoxy resin dispersion comprises epoxide compounds preferably polyglycidyl ethers\* (see column 4, lines 35-36). It is disclosed in column 5, lines 9-19 that the epoxy resins that comprise the epoxide compound have an epoxide equivalent weight from 50 to 2500 mmol/kg as per instant claim 4. It is disclosed in column 7, lines 31-39 that the dispersion can also comprise polyamines such as diethylenetriamine as component A-3 as per instant claims 6 and 19. Column 8, lines 31-56 of the reference discloses that the dispersion can also have oils

present in the amount of 0 to 20% by mass (see column 4, lines 55-56). Column 11, lines 50-58 discloses that imidazole is used in the dispersion. The reference discloses that the imidazole can be present in the amount of 5 to 50% by mass (see column 11). It is disclosed in column 17 that the dispersion has high dilutability and that the dispersion can be applied by spraying. Pfeil also discloses that the dispersion can be used in compositions for mineral substrates and glass.

\*Regarding the limitation that the "epoxy resin is prepared by the reaction of epichlorohydrin with an alcohol...", this is a process limitation. It is disclosed in column 7, lines 7-10 that the epoxy resin can be prepared by the reaction of epichlorohydrin and an alcohol. Pfeil also discloses in column 8 that the alcohol can be a polyol or diol as per instant claims 21 and 22.

### *Claim Rejections - 35 USC § 103*

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caccini et al., U.S. Patent Number 5,968,645 in view of Pfeil et al., U.S. Patent Number 5,908,902

Caccini discloses a sizing composition sprayed onto fibers wherein the fibers are comprised of a veil of glass fibers (mineral wool) (see column 6, lines 6-54). The Caccini reference also discloses that the fibers are collected in sheet form as required by present claim 10 (see column 5, lines 50-51 and column 6, lines 51-54). Caccini also discloses that the fibrous

materials can be used for thermal and/or acoustic insulation (see column 6, lines 24-28). Caccini discloses that the sheet is passed through an enclosure and heated from 100 to 300 degree C. The Caccini reference discloses that an epoxy resin of the glycidyl ether type used in combination with an amine hardener can be used in the sizing composition. Although Caccini discloses using a sizing composition comprising an epoxy resin of the glycidyl ether type used in combination with an amine hardener, Caccini does not disclose the sizing composition as required by the present claims.

Pfeil discloses a self-emulsifying epoxy resin that is useful in dispersions (see column 1, lines 5-11). Pfeil also disclose aqueous epoxy resin dispersion (see column 4, lines 15-20). the reference discloses that epoxy resin dispersion comprises epoxide compounds preferably polyglycidyl ethers (see column 4, lines 35-36). It is disclosed in column 5, lines 9-19 that the epoxy resins that comprise the epoxide compound have an epoxide equivalent weight from 50 to 2500 mmol/kg as per instant claim 4. It is disclosed in column 7, lines 31-39 that the dispersion can also comprise polyamines such as diethylenetriamine as per instant claims 6 and 19. Column 8, lines 31-56 of the reference discloses that the dispersion can also have oils present in the amount of 0 to 20% by mass (see column 4, lines 55-56). Column 11, lines 50-58 discloses that imidazole is used as an accelerator in the dispersion. The reference discloses that the imidazole can be present in the amount of 5 to 50% by mass (see column 11). It is disclosed in column 17 that the dispersion has high dilutability and that the dispersion can be applied by spraying. Pfeil also discloses that the dispersion can be used in compositions for mineral substrates and glass. It is disclosed in column 7, lines 7-10 that the epoxy resin can be prepared by the reaction of epichlorohydrin and an alcohol.

Caccini discloses in column 2 that the addition of a size makes it possible for the fibrous material to retain its intrinsic properties and maintain dimensional stability. Caccini discloses using epoxy resins of the glycidyl ether type with an amine hardener. The dispersions of the Pfeil reference comprise an epoxy resin of the glycidyl ether type with an amine hardener. Pfeil's dispersion also comprises imidazole and the epoxy resin is a self-emulsifying epoxy resin. The dispersion of the Pfeil reference has very high hardness, corrosion prevention and resistance to water and chemicals and is suitable on mineral substrates. Therefore, it would have been obvious to one of ordinary skill in the art to apply the self-emulsifying dispersion of the Pfeil reference as a size onto the veil of mineral fibers in Caccini thermal and/acoustic insulation in order to have high dimensional stability and chemical resistance.

### ***Response to Arguments***

8. Applicant's arguments filed October 12, 2010 have been fully considered but they are not persuasive. Applicant argues that claim 1 explicitly recites that the epoxy resin is prepared by the reaction of epichlorohydrin with an alcohol. This is a process limitation in a product claim. A process limitation in a product claim is not given any patentable weight. See MPEP 2113. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even the prior product was made by a different process. The manner in which the epoxy resin of the glycidyl ether is

prepared does not make the epoxy resin of glycidyl ether of the Pfeil reference different from that required of the present claims. The Pfeil reference discloses a composition that comprises an epoxy resin dispersion comprising polyglycidyl ethers, polyamines (A-3 of Pfeil reference; amine hardener) and imidazoles. Present claim 1 is directed to the composition and not the process in which the epoxy resin is manufactured. Pfeil comprises the same components required for the present composition. Applicant argues that Pfeil does not describe a reaction of epichlorohydrin and an alcohol. It is disclosed in column 7 of the Pfeil reference that the polyols can be used as component (A-2). Additionally, Pfeil discloses that polyglycidyl ethers are preferred but that polyglycidyl esters can be used and formed from reaction products of epichlorohydrin. Present claim 1 and its dependents have open language and can include other materials in the composition such as the epichlorohydrin with the polyglycidyl esters, which are reacted with the aromatic polyols of component (A-2). The language in the present claims is open. Applicant's argument is not persuasive. The rejections are maintained.

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1786

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.



***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Camie S. Thompson whose telephone number is 571-272-1530. The examiner can normally be reached on Monday-Friday 8:00 am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. Lawrence Tarazano/

Supervisory Patent Examiner, Art Unit 1786

/Camie S Thompson/

Examiner, Art Unit 1786